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More priorities on the following pages

(83) Declaration under Rule 28(4) EPC (expert solution)

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Remarks:
**THE COMPLETE DOCUMENT INCLUDING
REFERENCE TABLES AND THE SEQUENCE
LISTING IS AVAILABLE ON CD-ROM FROM THE
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SUB-OFFICE.**

(54) **Sequence-determined DNA fragments and corresponding polypeptides encoded thereby**

(57) The present invention provides DNA molecules that constitute fragments of the genome of a plant, and polypeptides encoded thereby. The DNA molecules are useful for specifying a gene product in cells, either as a promoter or as a protein coding sequence or as an UTR or as a 3' termination sequence, and are also useful in controlling the behavior of a gene in the chromosome,

in controlling the expression of a gene or as tools for genetic mapping, recognizing or isolating identical or related DNA fragments, or identification of a particular individual organism, or for clustering of a group of organisms with a common trait.

^aArabidopsis DNA is used in the present experiment, but the procedure is a general one.

EP 1 033 405 A2

ID AAG43036 standard; Protein; 628 AA.
 XX
 AC AAG43036;
 XX
 DT 18-OCT-2000 (first entry)
 XX
 DE Arabidopsis thaliana protein fragment SEQ ID NO: 53743.
 XX
 KW Protein identification; signal transduction pathway; metabolic pathway;
 KW hybridisation assay; genetic mapping; gene expression control; promoter;
 KW termination sequence.
 XX
 OS Arabidopsis thaliana.
 XX
 PN EP1033405-A2.
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 PD 06-SEP-2000.
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 PF 25-FEB-2000; 2000EP-0301439.
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 PR 25-FEB-1999; 99US-0121825.
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 PR 17-FEB-2000; 2000US-0183165.
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XX

PA (CERE-) CERES INC.

XX

PI Alexandrov N, Brover V, Chen X, Subramanian G, Troukhan ME;
 PI Zheng L, Dumas J;

XX

DR WPI; 2000-507395/46.

DR N-PSDB; AAC47417.

XX

PT New sequence determined DNA fragments (SDFs) from different plant
 PT species, e.g. corn, rice or Arabidopsis thaliana, useful as promoters,
 PT protein coding sequences, untranslated regions, or as 3' termination
 PT sequences -

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PS Claim 19; SEQ ID 53743; 344pp + CD-ROM; English.

XX

CC The present sequence is a putative protein fragment from

CC Arabidopsis thaliana. Its coding sequence was isolated by carrying out
CC RT-PCR on all of the mRNA obtained from the plant, and creating a cDNA
CC library which could then be sequenced, allowing the putative protein
CC sequence(s) to be obtained. This sequence may be useful for protein
CC identification and for aiding in the elucidation of signal transduction
CC and metabolic pathways. Its coding sequence has a use in the control of
CC gene expression as a promoter, coding sequence, 3'UTR or termination
CC sequence, for controlling the behaviour of a gene within the chromosome,
CC as a tool for use in genetic mapping, including a use in hybridisation
CC assays, for recognition or isolation of similar DNA fragments, or for
CC the identification of a particular organism.

XX

SQ Sequence 628 AA;

SQ 67 A; 35 R; 18 N; 35 D; 0 B; 11 C; 21 Q; 52 E; 0 Z; 40 G; 10 H;

SQ 29 I; 62 L; 39 K; 16 M; 19 F; 42 P; 51 S; 29 T; 1 W; 18 Y; 33 V;

SQ 0 Others;

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pleraiqvpd ptrgpdhsla afsgmqldg tismgqidr siacyeeglk iqiqtlgdt
prvgetcryl aeayvqamqf nkaeelckkt leihrahsep asleaaadrr lmaiiceakg
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 AC AAG43037;
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 DE Arabidopsis thaliana protein fragment SEQ ID NO: 53744.
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 KW Protein identification; signal transduction pathway; metabolic pathway;
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 PA (CERE-) CERES INC.
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 PI Alexandrov N, Brover V, Chen X, Subramanian G, Troukhan ME;
 PI Zheng L, Dumas J;
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 DR WPI; 2000-507395/46.
 DR N-PSDB; AAC47417.
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 PT New sequence determined DNA fragments (SDFs) from different plant
 PT species, e.g. corn, rice or Arabidopsis thaliana, useful as promoters,
 PT protein coding sequences, untranslated regions, or as 3' termination
 PT sequences -
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 PS Claim 19; SEQ ID 53744; 344pp + CD-ROM; English.
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ID AAG43038 standard; Protein; 606 AA.
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AC AAG43038;
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DT 18-OCT-2000 (first entry)
XX
DE Arabidopsis thaliana protein fragment SEQ ID NO: 53745.
XX
KW Protein identification; signal transduction pathway; metabolic pathway;
KW hybridisation assay; genetic mapping; gene expression control; promoter;
KW termination sequence.
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OS Arabidopsis thaliana.
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PD 06-SEP-2000.
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PF 25-FEB-2000; 2000EP-0301439.
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PA (CERE-) CERES INC.

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 PT protein coding sequences, untranslated regions, or as 3' termination
 PT sequences -

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PS Claim 19; SEQ ID 53745; 344pp + CD-ROM; English.

XX

CC The present sequence is a putative protein fragment from

CC Arabidopsis thaliana. Its coding sequence was isolated by carrying out
 CC RT-PCR on all of the mRNA obtained from the plant, and creating a cDNA
 CC library which could then be sequenced, allowing the putative protein
 CC sequence(s) to be obtained. This sequence may be useful for protein
 CC identification and for aiding in the elucidation of signal transduction
 CC and metabolic pathways. Its coding sequence has a use in the control of
 CC gene expression as a promoter, coding sequence, 3'UTR or termination
 CC sequence, for controlling the behaviour of a gene within the chromosome,
 CC as a tool for use in genetic mapping, including a use in hybridisation
 CC assays, for recognition or isolation of similar DNA fragments, or for
 CC the identification of a particular organism.

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SQ Sequence 606 AA;

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SQ 0 Others;

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KW protein identification; signal transduction pathway;
KW metabolic pathway; promoter; termination sequence; ss.
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XX
 PA (CERE-) CERES INC.

XX
 PI Alexandrov N, Brover V, Chen X, Subramanian G, Troukhan ME;
 PI Zheng L, Dumas J;

XX
 DR WPI; 2000-507395/46.
 DR P-PSDB; AAG49979, AAG49980, AAG49981.

XX
 PT New sequence determined DNA fragments (SDFs) from different plant
 PT species, e.g. corn, rice or Arabidopsis thaliana, useful as promoters,
 PT protein coding sequences, untranslated regions, or as 3' termination
 PT sequences -

XX
 PS Claim 1; SEQ ID 63285; 344pp + CD-ROM; English.

XX
 CC The present sequence is a cDNA fragment from Arabidopsis thaliana.

CC It was isolated by carrying out RT-PCR on all of the mRNA obtained from
 CC the plant, and creating a cDNA library which could then be sequenced.
 CC This enabled the putative protein sequence(s) to be obtained. This
 CC sequence may be useful in the control of gene expression as a promoter,
 CC coding sequence, 3'UTR or termination sequence, for controlling the
 CC behaviour of a gene within the chromosome, as a tool for use in genetic
 CC mapping, including a use in hybridisation assays, for recognition or
 CC isolation of similar DNA fragments, or for the identification of a
 CC particular organism. The protein it encodes may have a use in protein
 CC identification and in the elucidation of signal transduction and
 CC metabolic pathways.

XX
 SQ

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